

## **Historic, archived document**

Do not assume content reflects current scientific knowledge, policies, or practices.



THE GARDEN CALENDAR

A radio talk by W. R. Beattie, Bureau of Plant Industry, delivered in the Department of Agriculture period of the National Farm and Home Hour, broadcast by a network of 49 associate NBC radio stations, Tuesday, May 9, 1933.

Hello Folks: Last Tuesday, I told you that I would talk to you today about watering your gardens, and the use of mulches as a means of conserving soil moisture. Before I start on that, however, I want to give you folks who grow sweetpotatoes the results of some recent experiments in the spacing of sweetpotato plants.

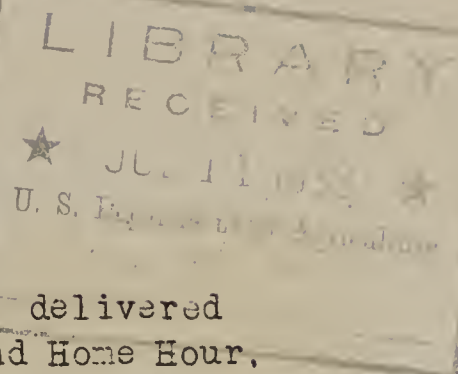
Our investigators have found after repeated tests that there is nothing to be gained by setting the plants closer than 15 inches in the rows. In the experiments, the rows were spaced 4 feet apart so that the plants in one row would not influence those in the next row. The plants were set 6, 9, 12, and 15 inches apart in the rows. Somewhat to our surprise, the yields of marketable potatoes were no greater where the plants were set 6, 9, and 12 inches apart than at 15 inches. I thought this information might interest you folks who are now planting your sweetpotatoes.

Now for a few suggestions on watering our gardens. Most of us who live in the eastern part of the country depend mainly on the natural rainfall for keeping our gardens alive and growing, but there are times when a little irrigation would be a big help. Thousands of farm homes are now equipped with water systems, and where the water supply is adequate, it often pays to water the garden crops during periods of insufficient rainfall. Where we do not have the water to spare we can often use mulches around our plants to conserve the soil moisture.

Let us assume that you have a water supply, the question is, how are you going to distribute the water. There are three main systems in more or less general use for applying the water to our garden crops. The first, and the one most commonly employed in the western irrigation country, is the "flooding" or "flowing" system where the water is allowed to flow over the surface of the soil, and then the surplus water is drained off. That works fine where your garden is level and you have plenty of water so that the soil can be flooded evenly. A modification of this system is the furrow method where the water is allowed to flow in furrows along the rows of crops. This is really our second system of applying the water and is now being extensively employed in the Eastern States. The land does not have to be level, as the water can be discharged at the highest point and allowed to flow down hill in the furrows, or the furrows can be run on contours around the slope and given just enough fall to cause the water to flow slowly through them.

I have a very satisfactory system in a small section of my garden where I utilize the waste water from a swimming pool for watering this part of my garden. The outlet to the swimming pool is on a level with the upper side of this portion of my garden, and I have a header or feeder ditch running across the upper side which connects with a small furrow alongside each row of vegetables. The rows have just enough fall to cause the water to flow slowly

(over)





to the lower end of the garden, and the flow of water into the furrows is regulated by shoveling a little earth into each opening to the feeder ditch. Before turning in the water, I open the furrows with the corner of a hoe and after watering, allow the water to settle away, then draw a little dry soil into the furrows to prevent the wet soil from baking.

Our third system, and one which is in quite general use on commercial truck gardens of the east, consists of lines of sprinkler pipes mounted on posts and fitted with small pinhole nozzles every two or three feet. These lines of sprinkler pipes are spaced about 50 feet apart and connected to a main feeder pipe through which water is pumped from a pond or a stream. The flow of water into the individual lines of pipe is controlled by valves and each line is fitted with a universal joint so that the streams of water from the little nozzles can be turned in any direction. You can get the sprinkler pipes equipped with unions so that they can be very readily taken apart and put together if you want to move them from one location to another.

There are on the market a great many styles of sprinklers that can be attached to the end of an ordinary garden hose. These are used on lawns but are fairly good for watering the vegetable garden. Some of the more elaborate of these devices will water a space 50 feet square at one setting.

There is one important point for you to remember about this whole matter of watering the garden, and that is to water only when your crops actually need moisture and then to water thoroughly. The frequent, light sprinkling of the surface promotes a shallow root growth which is easily injured by cultivation. This applies to the watering of the lawn as well as to the garden and when you water you want to make a good job of it.

Now a word about mulches. I find that I can keep my garden crops growing in better shape during dry weather by combining the use of a moderate amount of water with a layer of some kind of mulching material over the surface to conserve the moisture and shade the soil. Any material such as fine straw-bedding manure, litter from the poultry house, pine needles, partly decayed leaves, leaf-mold from the woods, or even weeds chopped fine and spread over the surface will hold the moisture. Manure has the advantage that it not only holds the moisture but it adds some plant food to the soil. Flat stones on the surface will help to hold the moisture. Did you ever turn up a large flat stone when you were looking for fish-bait and notice how moist the soil was under the stone even in dry weather? Paper mulch is being used to hold the moisture. I have had excellent results with muskmelons and cucumbers where I spaced the rows 6 feet apart then spread a 3-foot strip of mulch paper over the row, punching holes in the paper where the hills were placed. That gives me 3 feet of covered space directly around the plants and 3 feet in the middles for cultivation. Heavy mulches of straw or manure have the tendency to delay the maturity of certain vegetable crops. For that reason the season of production of tomatoes, peppers, eggplant and squashes can be prolonged by mulching. As a rule the total production is about the same, the difference being that the crop matures over a longer period and that is what we want in our home gardens.

Mr. Salisbury:

How about the cost of these systems of watering our gardens Mr. Beattie?

Beattie:

That's where the shoe pinches Mr. Salisbury, and a lot of us are not going to be able to buy any expensive equipment this year. We can often improvise ways of getting water onto our gardens. For example, I once knew an old Pennsylvania gardener who brought the water from a mountain spring around a hill and down to his garden by means of wooden troughs that were hewn out of straight pine poles. The poles were split in half then each half hollowed out to form a trough and one trough simply discharged into the next lower one until the water finally landed in a barrel at the upper side of the garden. From this barrel the water was distributed through little furrows all through the garden. When the garden had enough water the trough was disconnected at one side of the garden and the water flowed down the hill to a brook.

I heard of an ingenious southern boy gardener who cut bamboo poles and burned out the joints with a long iron rod heated redhot at one end then he fitted the sections of bamboo together to form a tube to carry the water from a flowing well to his garden. Troughs for carrying the water can be made by nailing two laths together in the shape of a letter V. There are a great many ways of getting water onto our gardens during periods of drought provided we have the water. Where no other source is available it pays to haul water in barrels for watering plants when they are being set during dry weather. Of course the ideal is where we have a water system to draw from and we can simply attach the hose and give our crops the water they need but we can often do a lot of good with a small amount of water rightly applied to the roots of our plants.

We've had such frequent rains around Washington this spring that gardeners have had difficulty getting their gardens planted, but the skies may clear, the soil become dry and we will need to apply water to keep our garden crops growing.

